December 3, 2004

BY ELECTRONIC FILING

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: WT Docket No. 03-103
Ex Parte Presentation

Dear Ms. Dortch:

On December 1, 2004, Michael Ha, and I of Nextel Communications met with Samuel Feder, Legal Advisor to Commissioner Kevin J. Martin, to discuss the serious threat of interference that the proposed wideband Air-to-Ground (ATG) service will create for public safety, specialized mobile radio, and cellular A and B operations in the 800-900 MHz bands. A copy of our presentation is attached.

We also provided Mr. Feder with a courtesy copy of the technical study that Nextel filed in this proceeding on November 16, 2004. Under section 1.1206(b)(2) of the Commission's rules, 47 C.F.R. § 1.1206(b)(2), please associate this letter with the above-referenced docket.

Sincerely,

/s/ Trey Hanbury

Trey Hanbury
Senior Counsel
Nextel Communications

CC: Samuel Feder

Harmful Interference from Wideband Air-to-Ground Systems into Public Safety, Specialized Mobile Radio, and Cellular Operations

Presentation to the Federal Communications Commission
WT Docket 03-103

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Numerous Parties Have Stated That WATG Can Cause Harmful Interference

- The following parties have stated that WATG can cause harmful interference to adjacent-band licensees, including Public Safety, Specialized Mobile Radio, and Cellular operations:
  - Association of Public-Safety Communications Officials, International (APCO)
  - CTIA – The Wireless Association (CTIA)
  - Motorola
  - Nextel
  - Association of American Railroads (AAR)
  - AirCell
- Neither SpaceData, nor Verizon Airfone has responded to any of these adjacent-band interference concerns.

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WATG Increases Interference

- WATG creates a very high likelihood of harmful interference for:
  - *Public Safety NPSPAC channels at 800 MHz.* These licensees' systems are not interference tolerant and are particularly susceptible to low-altitude WATG operations, especially during takeoff, landing, and taxiing.
  - *SMR Operations at 800 MHz.* These licensees are also particularly susceptible to low-altitude WATG operations, especially during takeoff, landing, and taxiing. SMR will not fully vacate the vulnerable portion of the band for up to three years, yet WATG operations could commence as early as 2005.
  - *Cellular A & B Uplink at 824-849 MHz and Cellular A & B Downlink at 869-894 MHz.* Cellular A & B downlinks would suffer severe interference depending on the sites' geometry. Cellular A & B uplinks may also suffer interference depending on system configuration.
- The concerns remain largely unanswered. In its Nov. 29, 2004 filing, for example, APCO states that it "remains concerned that 'deck-to-deck'" operations will cause harmful interference and urges the Commission to solve these and related interference issues "<u>before adopting rules in the ATG proceeding</u>."

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Two WATG Proposals Do Not Address Harmful Adjacent-Band Interference

- In response to staff requests, Nextel recently submitted a major technical study of likely adjacent-band interference from WATG.
  - Nextel's analysis demonstrated that adjacent band interference was extremely likely without placing critical restraints on WATG operations.
  - In response, AirCell/Boeing explained how their proposed system would not cause harmful interference to adjacent-band public safety, SMR, and cellular licensees.
- Because AirCell/Boeing have agreed to restrict low-altitude WATG operations and implement other protective measures, the AirCell/Boeing approach is unlikely to cause harmful interference to adjacent-band operations.
- To the best of Nextel's knowledge, however, the Verizon Airfone and SpaceData proposals do not incorporate comparable interference-protections; therefore, these proposals are extremely likely to cause harmful interference to adjacent-band licensees.

The *800 MHz Order* Does Not Solve the New Problems that WATG Will Create

- Simply "applying the *800 MHz Order* approach" to this newly created WATG interference source does not solve adjacent-band interference problems.
  - First, nothing in the *800 MHz Order* addresses the 900 MHz interference problem.
  - Second, the *800 MHz Order* adopted bright-line limits on out-of-band emissions; however, these limits are part of a carefully balanced framework designed to equitably allocate responsibility for interference among all 800 MHz band users, including public safety, non-cellular SMR, and Business, Industrial and Land Transportation (B/ILT) systems.

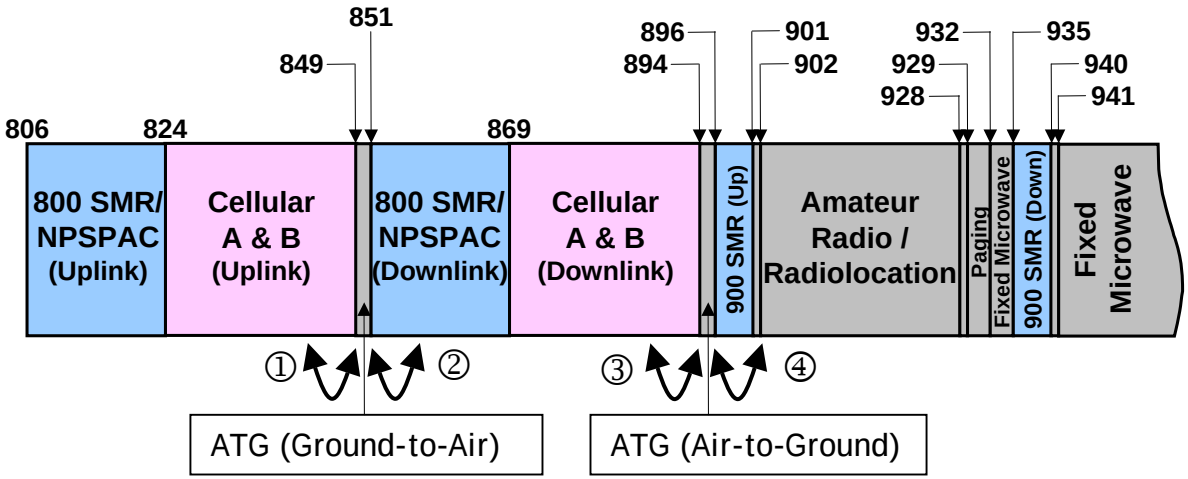
The *800 MHz Order* Does Not Solve the New Problems that WATG Will Create (continued)

- Applying the bright-line rules governing interference does not explain how the new interference source – WATG – fits into the detailed framework for resolving 800 MHz interference.
  - To offer just one example, must a WATG licensee avoid certain hot-spots because these areas are already dangerously close to causing interference to public-safety licensees?
  - Or is WATG allowed to enter these problem areas with new facilities potentially triggering costly mitigation measures from previously compliant incumbents?
- Before the Commission authorizes a new WATG service in the midst of a complex and interference-prone band, WATG proponents must, at a minimum:
  - provide detailed proposals to anticipate and avoid potential interference before it occurs; and
  - explain how to integrate the new WATG interference source into the numerous rules and policies governing interference-abatement procedures among 800 MHz incumbents.

Conclusion

- With its radically new operational characteristics, WATG could exacerbate the 800 MHz public-safety interference problem that the Commission has worked so hard to solve.
- The Verizon Airfone and SpaceData WATG proposals will increase the likelihood of harmful interference into the 800-900 MHz operations of public safety, cellular, and SMR licensees.
- Verizon Airfone and SpaceData have not responded to credible, detailed analysis that their proposals will result in adjacent-band interference.
- The detailed rules governing interference resolution among 800 MHz incumbents do not account for WATG as a new source of harm to public-safety; therefore, WATG proponents – at a minimum – must address adjacent-band interference and describe how to integrate the new WATG interference source into the comprehensive 800 MHz interference-abatement procedures that the Commission recently adopted.

Appendix 1: Interference Cases



Case	ATG Allocation	Adjacent Neighbor
1	Downlink (Ground-to-Air)	Cellular Uplink
2	Downlink (Ground-to-Air)	SMR/Public Safety
3	Uplink (Air-to-Ground)	Cellular Downlink
4	Uplink (Air-to-Ground)	900 MHz SMR Uplink

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